soundmachines

LS1lightstrip User's Manual

- Introduction
- Care and feeding
- Specifications

Introduction

The LS1lightstrip is a capacitive slider that generates CV and GATE signals along with the movement of your finger on its surface. It can also record those movements and loop them. It has different modes of working depending on the settings of the MODE button and the jumpers positions on the back of the module. The module can be mounted both ways. We thought that in a 3U skiff it could be good to have the jacks on the top side and the contrary in a standard vertical mounted modular case. It's up to you! We provided a jumper to be sure that when your finger goes 'up', the voltage rise!

You can record up to 8 seconds of 'movements' on the slider, including GATE output with a resolution of 15msec. The result is a nice and smooth variation in the output.

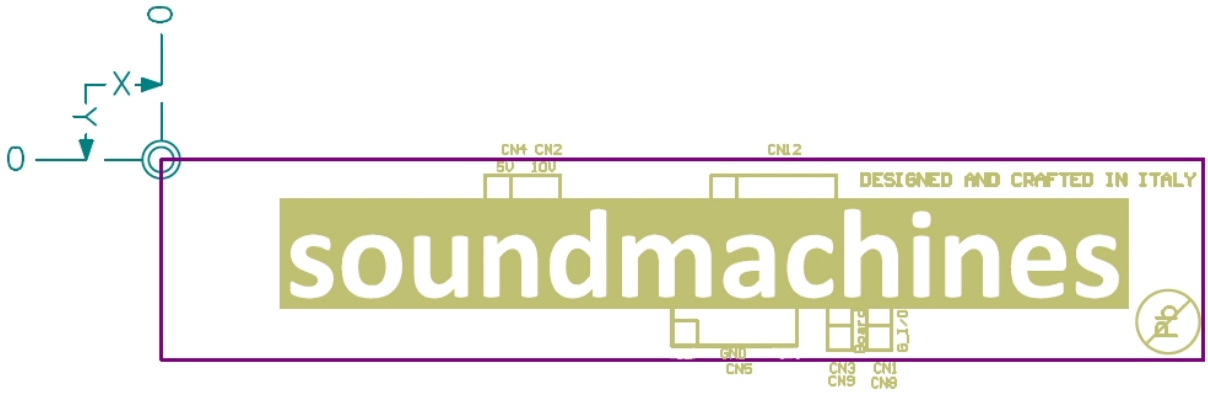
The module can be setup to generate either 5V or 10V output voltage, by means of a jumper setting.

Care and Feeding

LS1lightstrip is an 4hp eurorack module designed to comply with the Doepfer® power standard.

GATE signal is **5V compliant**, either in GATE OUT and in External GATE mode (as an input). **ATTENTION: GATE as an input is protected for overvoltages but the LS1 may malfunction out of his nominal range. It is strongly advised to not exceed the rated voltage.**

Due to a glitch during the development phase, the orientation of the power cable (normally -12 on the bottom side) is **REVERSED**! With the REC/MODE button UP (the module is reversible) the power cable should have the -12V rail (and hence the red stripe) UP. See next figure:



The modules came with jumper preinstalled but only the 5/10V CV out is inserted and the setting is "5V". The other jumpers, "Board" and "G_I/O" (GATE I/O), are mounted but they are not actually shorting the pins. This sets the 'default' condition of the board.

- Board Orientation "Board" jumper: NO SHORT (default): BOTTOM is where the CV and GATE connectors are.

- GATE direction "G_I/O" jumper: NO SHORT (default): GATE is an output.

Please use the supplied power cable. The red conductor on the cable is connected to -12V supply rail as the standard implies.

Current rating: the module requires XXXmA on the +12V rail. Very little current is drawn on the negative supply line.

Specifications

LS1lightstrip is a CV generating module. This chapter will tell you, in details, how its multiple modes are triggered and configured and how you can use it in your environment.

Modes of operation: The module has three different modes of operation: LIVE, HOLD ad REC:

LIVE Mode

LIVE mode is used when you want to have a direct relationship between your... finger and the modular. The LED on the mode/red button is OFF to signal this state. Each time your fingers touches the slider surface a voltage is sent out the CV jack and the relevant GATE signal is also put out. Pair this with a quantizer and, you know….. The LEDs on the side of the slider will light up as the voltage output changes. The CV output will swing linearly between 0V (actually is a little more than that) and 5 or 10V depending on the range jumper setting.

HOLD Mode

Without having your finger on the slider, press the rec/mode capacitive buttton. The rec/mode LED will light solid as the HOLD mode is entered. Same as above but the CV value is held when you whitdraw your finger. Instant control surface for VCFs, VCAs and any other CV controllable stuff in your modular. Tap on the rec/mode again to back up to LIVE mode. The LEDs on the side of the slider will light up as the voltage output changes. In this mode, the GATE output will be ON all the time.

REC Mode

This mode is implementing a movement/cv/gate recorder on the LS1. To enter the mode follow the folloeing instructions: While you have your finger (steady or moving)already on the slider, by pressing and holding the rec/mode capacitive button you START recording the movements on the slider. When you stop pressing the button (or you exceeds the maximum timeframe of 8 seconds) the output will start 'playing' in loop what you recorded (CV and GATE). The LED on the rec/mode button will blink fast during the recording and slower during the playback phase. If you operate again on the slider the output will be overridden with you physical intervention but the 'timing' won't be lost. To end the PLAY phase just tap on the rec/mode button again. The LEDs on the side of the slider will light up as the voltage output changes.

OPTIONS:

For each of those modes you can choose (via jumpers on the back) the CV range (0-5V or 0-10V), the orientation of the module (upside down anyone????

you possibly would like to choose where your jacks are!!!), the mode of RECORDING, internal or external (the GATE output in this case doubles as a REC button trigger, permitting you to 'sync' with some cosmic rhythm…).

When the LS1 is in External GATE mode (set by the jumper on the back), regardless of whatever state you are (obviously either LIVE and HOLD will not act on the GATE signal!) the module will record the finger position as long as the GATE input is HIGH (**max 5V**) and will loop the recorded values as soon as the GATE became LOW again. If GATE lenght exceeds the maximum available time, the loop phase starts automatically.

Note: altough this is extremely boring stuff, all the cited trade marks and registered product names are property of their legal owners.

CE